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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NAIMUL KARIM and OSWALD GASSER

Appeal 2009-009848
Application 10/749,306
Technology Center 3700

Before MICHAEL W. O'NEILL, KEN B. BARRETT, and
FRED A. SILVERBERG, *Administrative Patent Judges*.

SILVERBERG, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Naimul Karim and Oswald Gasser (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 1-27. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

THE INVENTION

Appellants' claimed invention is directed to curable dental mill blanks that are suitable for use in fabricating dental and orthodontic appliances by machining procedures (Spec. 1:7-8).

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A method of making a dental appliance, said method comprising:
 - (a) providing a dental mill blank comprising a substantially uncured, self-supporting, hardenable organic composition;
 - (b) machining the mill blank into a substantially uncured shaped article; and
 - (c) at least partially curing the shaped article to provide a hardened dental appliance.

THE REJECTIONS

The following rejections by the Examiner are before us for review:

1. Claims 1-7, 13-17 and 19-27 are rejected under 35 U.S.C. § 102(b) as being anticipated by Freilich (US 6,599,125 B1, issued Jul. 29, 2003).
2. Claims 1-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Freilich in view of Karim (US 2003/0114553 A1, published Jun. 19, 2003).

ISSUES

The issues before us are: (1) whether the Examiner erred in finding that Freilich's partial curing of composite material to withstand machining describes machining a substantially uncured shaped article, as called for in independent claims 1 and 27 (App. Br. 9-10); and (2) whether the Examiner erred in concluding that the combined teachings of Freilich and Karim would have rendered obvious the step of machining a substantially uncured article, as called for in independent claim 1 (App. Br. 11).

ANALYSIS

Rejection of claims 1-7, 13-17 and 19-27 under 35 U.S.C. § 102(b) as being anticipated by Freilich

Independent claims 1 and 27 call for, *inter alia*, the steps of “providing a dentil mill blank comprising a substantially uncured . . . composition” and “machining the [uncured] mill blank.”

Appellants contend that Freilich does not describe machining the mill blank into a substantially uncured article, as called for in independent claims 1 and 27, since Freilich teaches that dental materials must be partially cured to be machinable (App. Br. 9-10).

The Examiner found that “Freilich teaches that the dental mill blank is only cured enough to be sufficiently machined and therefore inherently encompasses that the mill blank is uncured, partially cured, or fully cured depending on the material used to comprise the mill blank” (Ans. 5).

The Examiner states the following: “the examiner has interpreted the term ‘substantially uncured’ to include ‘partially cured’ for if the material were not at least partially cured in the instant application the proper claim limitation would be ‘uncured’ instead of ‘substantially uncured’ (Ans. 8).

The Examiner found that “the ‘partially cured’ teaching of Freilich is broad enough to encompass [A]ppellants’ ‘substantially uncured’ limitation” (Ans. 9).

When a word of degree, such as the term “substantially,” is used in a claim, we look to the specification to determine whether the specification provides some standard for measuring that degree. *See Seattle Box Company, Inc. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 826 (Fed. Cir. 1984).

Appellants’ Specification describes that “[t]he term ‘substantially uncured’ means the composition has been cured to an extent less than 10%, typically less than 5%, and more typically less than 1% whether by incidental or intentional curing mechanisms” (Spec. 7:7-10).

Freilich describes that “the complicated shapes may be formed by pressing the composite material into molds and fully or partially curing into a hardness sufficient to withstand cutting, carving or machining” (col. 6, ll. 57-60).

Freilich is silent as to the percentage the composite material has been cured when the composite material is partially cured into a hardness sufficient to withstand cutting, carving or machining. As such, it becomes incumbent upon the Examiner to provide an adequate basis in fact and/or technical reasoning that would support a finding that the ‘partially cured’ teaching of Freilich is broad enough to encompass Appellants’ ‘substantially uncured’ limitation. *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991) (“To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make

clear that the missing descriptive matter is necessarily present in the thing described in the reference.) The Examiner has not directed us to a particular portion in Freilich with reference to the relevant column or page number(s) and line(s) or to other evidence which would support the Examiner's finding.¹ Further, we do not find any support for the Examiner's finding. Thus, we find that the Examiner has not provided an adequate basis in fact and/or technical reasoning that would support a finding that the 'partially cured' teaching of Freilich is broad enough to encompass Appellants' 'substantially uncured' limitation. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) ("Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.")

We reverse the rejection of independent claims 1 and 27 and dependent claims 2-7, 13-17 and 19-26.

Rejection of claims 1-27 under 35 U.S.C. § 103(a) as being unpatentable over Freilich and Karim

Appellants argue claims 1-27 as a group (App. Br. 11). As such, we select independent claim 1 as representative of the group, and claims 2-27 will stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii).

Independent claim 1 calls for, *inter alia*, the steps of "providing a dentil mill blank comprising a substantially uncured . . . composition" and "machining the [uncured] mill blank."

Appellants contend (1) that "nothing in Karim resolves the deficiencies of Freilich" (App. Br. 11), and (2) without adding any adequate

¹ MPEP § 706.02(j) (8th ed., Rev. 8, Jul. 2010)

substantive arguments regarding the combined teachings of Freilich and Karim, that “the present invention is non-obvious in view of the combination of Freilich and Karim” (*id.*). Appellants provide further contentions regarding the teachings of Karim.

We find that Appellants argue the cited references individually, while the Examiner’s conclusion of obviousness is based on a combination of references. The test for obviousness is whether the references, taken as a whole, would have suggested Appellants’ invention to a person having ordinary skill in the art at the time the invention was made. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986); *In re Keller*, 642 F.2d 413, 426 (CCPA 1981) (One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.).

Thus, we find that Appellants have not adequately argued whether the combined teachings of Freilich and Karim describe the invention called for in claim 1.

We find that the Examiner’s findings for Freilich and Karim (Ans. 4-6) regarding the alternative rejection are sound and adopt them as our own. In particular, while Freilich does not describe the claimed substantially uncured material that is machinable², Karim does describe an uncured material that is machinable (Karim, p. 12, para. [0131]). Further, the Examiner found that Karim’s composition “is inherently suitable to be machined in a substantially uncured state” (Ans. 6). We agree with the

² As set forth *supra* regarding the rejection of claim 1 over Freilich, we find that Freilich does not describe a substantially uncured material that is machinable.

Examiner's conclusion of obviousness, which is based on these findings, that is, it would have been obvious to modify the teachings of Freilich by substituting in Freilich for his material, the substantially uncured material that is machinable as described by Karim to yield the predictable result of the practitioner being capable of completing the molding of the implant at the moment of implantation to provide the most exact and comfortable fit for the patient (Ans. 6). *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007) (“[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.”)

We affirm the rejection of independent claim 1 and claims 2-27, which fall with claim 1.

CONCLUSIONS

The Examiner has erred in finding that Freilich's partial curing of composite material to withstand machining describes machining a substantially uncured shaped article, as called for in independent claims 1 and 27.

The Examiner has not erred in concluding that the combined teachings of Freilich and Karim would have rendered obvious the step of machining a substantially uncured article, as called for in independent claim 1.

DECISION

The decision of the Examiner to reject claims 1-7, 13-17, and 19-27 under 35 U.S.C. § 102(b) as being anticipated by Freilich is reversed. The

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decision of the Examiner to reject claims 1-27 under 35 U.S.C. § 103(a) as being unpatentable over Freilich and Karim is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

JRG